



EXPLANATION

- Outcrop areas shaded
 - Metagabbro dike
 - Mainly medium- to coarse-grained metagabbro
 - Badwater Gneiss
 - Outcrops are massive fine-grained metabasaltic flows, in part elliptical
 - Muhiganus Slate
 - Outcrops are gray and green slate. Exploration records show mainly gray, green, red, and black slate interbedded with fine- to medium-grained gray wacke. Locally includes cherty carbonate slate, ferruginous slate, graphite slate, and possibly taft and flow
 - Amasa Formation
 - Known only from exploration records. Mainly slaty iron-formation interbedded with ferruginous slate and minor cherty or cherty carbonate beds. Locally martitic and oolitic. Not magnetic within quadrangle
 - Hemlock Formation
 - Chiefly metabasaltic flows and pyroclastics, in part amphioloidal and elliptical. Includes minor slaty gneiss and igneous beds. Pyroclastic locally foliate to intermediate in composition. In places the metavolcanic rocks are strongly magnetic
- Contact
 Solid where approximately located; dashed where inferred; queried where position or existence doubtful
- Inferred fault
- Strike and dip of beds
 Strike of vertical beds
 Strike and dip of foliation or schistosity
 Strike of vertical foliation of schistosity
 Direction of top of bed shown by elliptical structure
- Trail
 Railroad, dashed where abandoned
- Crests of aeromagnetic anomaly
 Values in gamma of total intensity
- Location of ground magnetometer station
 Magnetic determinations made with vertical-component diatomic magnetometer
- Magnetic contours from ground survey
 Zero value approximately equal to 57,000 gamma; absolute vertical intensity. Contour interval 200 gamma. Hatchures indicate closed area of lower magnetic intensity
- Test pit or drill hole
 O-1 (112-158)
 SL-205 (207-550)
 Vertical
 Inclined
 Drill holes
 Shows hole number, lithology of bedrock, and in parentheses, distance to bedrock surface and length of hole. Inclined holes show projection of hole to horizontal surface. Data incomplete for some holes because information lacking. Holes not numbered taken from mining-company map compilations of uncertain accuracy, as that location or existence of some of these holes is in doubt; some may be test pits instead of drill holes. Question marks indicate description is from mining-company records
- Abbreviations used for rock types, in drill holes and outcrops
 amg, amphioloidal
 bl, black
 brc, breccia
 carb, carbonate
 ch, chert or cherty
 cong, conglomerate
 el, elliptical
 fe, ferruginous
 fol, foliate
 graph, graphite
 gs, gneissous
 gv, graywacke
 gy, gypsiferous
 H, iron-formation
 hb, bierbr
 mg, metagabbro
 ms, massive
 por, porphyritic
 pyr, pyritic
 qtz, quartzite
 sch, schist
 sl, slate or slaty
 vol, volcanic

MAGNETIC AND GEOLOGIC DATA IN SOUTHERN PART OF THE KELSO JUNCTION QUADRANGLE AND VICINITY, IRON COUNTY, MICHIGAN

800 0 800 1600 2400 3200 4000 FEET

INTERIOR-GEOLOGICAL SURVEY, WASHINGTON, D. C. 1946-04674
Geology and magnetics by K. L. Wier, 1956-59
Magnetics by R. A. Solberg, 1959